



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,929	12/09/2003	Yung-Hsiang Hsu		2431

7590 06/02/2005

TROXELL LAW OFFICE PLLC  
5205 LEESBURG PIKE  
SUITE 1404  
FALLS CHURCH, VA 22041

EXAMINER
----------

LEE, WILSON

ART UNIT	PAPER NUMBER
----------	--------------

2821

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EX

<b>Office Action Summary</b>	<b>Application No.</b> 10/729,929	<b>Applicant(s)</b> HSU, YUNG-HSIANG	
	<b>Examiner</b> Wilson Lee	<b>Art Unit</b> 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2005.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 3 and 4 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 3 and 4 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☒ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **Response to Arguments**

Applicant's arguments with respect to claims 3 and 4 have been considered but are moot in view of the new ground(s) of rejection.

### **Claim Rejections – 35 U.S.C. 112**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 3, line 6, "a second resistor connected in series with the first resistor and the first capacitor" contradicts the limitation in line 5, "a first capacitor connected in parallel with the first resistor". Parallel connection is two components being connected across each other and ended at the same nodes. Series connection is at least two components being connected in a string in a single current path. The second resistor cannot be connected in series with the first resistor and the first capacitor if the first capacitor is connected in parallel with the first resistor because in this arrangement, the second resistor cannot share a single path with the first capacitor and the first resistor.

Also, in claim 3, line 13, "before" is vague because it fails to disclose the circuit arrangement but includes a process order of method claim, which is not consistent with the structure claim. Should "before" be changed to "between"?

Further, line 13, second capacitor cannot increase conductance because all capacitors comprise two plates acting a current limiter that divides current flow. Capacitor is a mere voltage charger and cannot increase conductivity.

Regarding Claim 4, line 2, "power supply includes an alternating current and a direct current" is vague because it contradicts the limitation shown in line 10 of claim 3, "converting *an alternating current* into a direct current. Therefore, the power supply can only provide an alternating current in order to be consistent with the converting function.

### **Claim Rejections – 35 U.S.C. 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 4, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Dokoupil (2002/0075677) in view of Ertz, III et al. (5910,689).

Regarding Claim 3, Dokoupil discloses a light emitting diode driving circuit comprising:

- a) a power supply (1, 10) providing a current;
- b) a current control circuit (19, 18, 5) connected to the power supply and having:
  - o a first resistor (18);
  - o a first capacitor (5) connected in parallel with the first resistor (18); and

- o a second resistor (19) connected in series with *the parallel arrangement* of the first resistor (18) and the first capacitor (5);
- c) a light emitting diode array (17) having a plurality of light emitting diodes (7);
- d) a rectification circuit (16) connected between the current control circuit and the light emitting diode array (17) and converting an AC into a DC;

As discussed above, Dokoupil essentially discloses the claimed invention but does not disclose that the second resistor is located between the rectification circuit and the first resistor. However, placing the second resistor located between the rectification circuit and the first resistor does not make any difference or output change in the circuit shown in figure 7. Resistor (19) can still limit the same current flow supplied to the rectifier (16) in either locations. It would have been obvious to one of ordinary skill in the art rearrange the second resistor (19) being located between the rectification circuit and the first resistor in order to separate the direct connection between rectifier and the first resistor (18).

As discussed above, Dokoupil essentially discloses the claimed invention but fails to disclose a second capacitor connected between the light emitting diode array and rectifier. However, Ertz discloses a smoothing capacitor (C3) between rectifier (D1) and the load in order to filter the fill wave rectified output and smoothen the voltage (See Col. 7, lines 56-65 and Figure 2). It would have been obvious to one of ordinary skill in the art to place a second capacitor connected to the output of the rectifier in order to filter the fill wave rectified output and smoothen the voltage as taught by Ertz.

Regarding Claim 4, as discussed above, Dokoupil essentially discloses the claimed invention but does not explicitly disclose the power supply including alternating current or direct current. However, Dokoupil teaches that power supply (1, 10) is a mains plug that withdraws current from a main socket. It is well known to one skilled in the art that power supply (1, 10) is an AC supply since main plug is always an AC outlet. Either converting the power supply as a direct current source or alternating current source does not change the scope of the invention. It would have been obvious to one of ordinary skill in the art to provide a DC or AC or both power supply in Dokoupil in order to operate his invention with the outlet or portable battery, which involves routine skill in the art.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

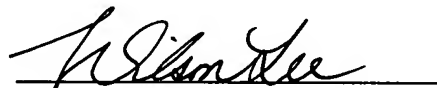
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (571) 272-1824.

Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The official fax number is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Wilson Lee', is written over a horizontal line.

Wilson Lee  
Primary Examiner  
U.S. Patent & Trademark Office